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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,065	04/12/2004	Alain Yang	D0932-00405	3991

8933 7590 11/16/2005

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EXAMINER

GOFMAN, ANNA

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/823,065	<b>Applicant(s)</b> YANG ET AL.	
	<b>Examiner</b> Anna Gofman	<b>Art Unit</b> 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) 52-58 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>03/04; 10/04; 02/05</u> | 6) <input type="checkbox"/> Other: _____  |

***Election/Restrictions***

1. Claims 52-58 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on November 2, 2005.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-4, 6-7, 12-15, 17-20, 25-29, 31-32, 37-40, 42-45, and 50-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Kajander et al. (US 2003/0008586).

Kajander et al. teach a laminate insulation material comprising inorganic fibers such as glass fibers and plastic-containing bi-component fibers (paragraph 0008). The bi-component fibers consist of a polyester core covered with a sheath of polyethylene (paragraph 0010), which is inherently a thermoplastic polymer. Further, the sheath material inherently has a lower melting point temperature than that of the core material. (paragraphs 0009 and 0010). Rotary glass fibers can also be used, having a fiber length of about 0.25 inches (paragraph 0019). On paragraph 0030, Kajander et al. disclose that said mat has a density of 45

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pounds per cubic foot, implying a uniform density throughout the laminate. The plastic-containing fibers make up about 20 weight percent (paragraph 0027). An intermediate layer of the laminate, which is used as a flame-retardant, may comprise a sheath of polyethylene or kraft fibers (paragraph 0017; paragraph 0010 and Example 1, respectively). Thus, claims 1-4, 6-7, 12-15, 17-20, 25-29, 31-32, 37-40, 42-45, and 50-51 are rejected.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5, 21-24, 30, and 46-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kajander et al.

The features of Kajander et al. have been set forth above. Kajander et al. teach an insulation laminate material comprising inorganic and thermoplastic fibers. Kajander et al. is silent about the density of the fiber insulation. It would have been obvious to one having ordinary skill in the art at the time the invention was made to select the desired density through the process of routine experimentation in order to arrive at values which offered the optimum insulation in the invention of Kajander et al.

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Further, Kajander et al. teach the glass fibers having diameters of about 6 micrometers (paragraph 0018), a laminate material with a thickness of about 15.7 mm, and the laminate material weight of 83 grams per square meters (paragraph 0030). It would have been obvious to one having ordinary skill in the art at the time the invention was made to select the desired diameters, laminate thickness, and weight through the process of routine experimentation in order to arrive at values which offered the optimum insulation in the invention of Kajander et al. Thus, claims 5, 21-24, 30, and 46-49 are rejected.

6. Claims 16 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kajander et al. in view of Jaffee (US 2004/ 0266304).

Kajander et al. teach an insulation laminate made of plastic-containing bi-component fibers and glass fibers, but fail to disclose said bi-component fibers comprising a core material of mineral fibers. Jaffee is drawn to fiber laminates used for insulation. Jaffee teaches non-woven mat comprising a binder of glass or mineral fibers (pg.4 col.1 paragraph 0032), bound together with a water resistant binder. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include mineral fibers in the binder taught by Kajander et al. The motivation would have been to provide strength and insulation to the core (pg.1 col.1 paragraph 0006). Thus, claims 16 and 41 are rejected.

7. Claims 8-11, and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kajander et al. in view of Yang et al. (US 2003/ 0049488).

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The features of Kajander et al. have been set forth above. Kajander et al. fail to teach the use of textile fibers as one of the fibers in the insulation product. Yang et al. is drawn to thermal and acoustic insulation laminates. Yang et al. teach textile fibers as inorganic fibers, having diameters of about 5 to 16 micrometers and lengths of from about 2 cm to 15cm (or 20 mm to 150 mm) (paragraph 0019). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the textile fibers taught by Yang et al. in the invention of Kajander et al., motivated to provide superior strength to the insulation product. Thus, claims 8-11, and 33-36 are rejected.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In addition to the references provided by Applicant, the follow documents are considered pertinent to Applicant's invention:

Fay et al. (US 2004/0185226) teach a formaldehyde-free fiberglass insulation assembly using mineral fibers, but do not teach plastic-containing bi-component fibers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna Gofman whose telephone number is (571) 272-7419. The examiner can normally be reached on Mon.-Fri. 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax

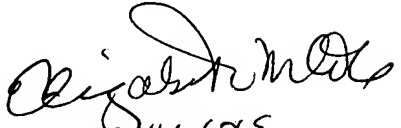
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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anna Gofman  
Examiner  
Art Unit 1771

AG

  
ELIZABETH H. GOFMAN  
PRIMARILY RESPONSIBLE